

Patent claims

1. A jack bracket for a motor vehicle, which is fixed to a sill of the motor vehicle using flanges and has an opening for a receiving element to which a jack can be fitted, characterized in that the bracket (12) is formed from a hollow profiled section (6) and a cover (13), which is secured to that end (10) of the hollow profiled section (6) covering the end (10), and has the opening (16) for receiving the jack.

2. The jack bracket as claimed in claim 1, characterized in that the hollow profiled section (6) is a hydroformed part.

3. The jack bracket as claimed in claim 1 or 2, characterized in that the flanges are formed out of wall parts (9) of the hollow profiled section (6).

4. The jack bracket as claimed in either of claims 1 to 3, characterized in that the cover (13) has a sleeve-like extension, by means of which the cover (13) is fitted onto the hollow profiled section (6).

5. The jack bracket as claimed in one of claims 1 to 4, characterized in that the cover (13) has a base region (17) which is substantially planar in form.

6. The jack bracket as claimed in one of claims 1 to 5, characterized in that the cover (13), in the installed position of the jack bracket (12) in the motor vehicle (30), is oriented parallel to the roadway over its entire base region (17).

7. The jack bracket as claimed in one of claims 1 to 6, characterized in that the cover (13) has beads (18) in the base region (17).

8. The jack bracket as claimed in one of claims 1 to 7, characterized in that the cover (13) has positioning holes (19) for a mounting device in the base region (17).

9. The jack bracket as claimed in claim 8, characterized in that the positioning holes (19) are of different sizes.

10. The jack bracket as claimed in one of claims 1 to 9, characterized in that the central opening (16) in the cover (13) is delimited by a collar (20) set toward the hollow profiled section (6).

11. The jack bracket as claimed in one of claims 1 to 10, characterized in that the receiving element is formed by a stopper (21), which preferably consists of plastic.

12. The jack bracket as claimed in claim 11, characterized in that the stopper (21), on its side (22) facing the cover, has at least one clip element (23) which interacts in a connecting manner with the central opening (16) in the cover (13).

13. The jack bracket as claimed in either of claims 11 or 12, characterized in that the circumferential outer side (24) of the stopper (21), in the securing position, ends flush with the cylindrical edge (15) of the cover (13) or is set back therefrom.

14. The jack bracket as claimed in one of claims 11 to 13, characterized in that that end side (25) of the stopper (21) which is remote from the cover is pre-offset downward with respect to surrounding components, which are critical in terms of damage, of the motor vehicle (30).

15. The jack bracket as claimed in one of claims 1 to 14, characterized in that the contour of the wall parts (9), which form connecting flanges, of the hollow profiled section (6) and the contour of the sill (26) are designed to be of corresponding shape to one another in the attachment region of the bracket (12).

16. The jack bracket as claimed in one of claims 1 to 15, characterized in that the brackets (12) on the sill (26) in front of the rear wheel and behind the front wheel of the motor vehicle (30) are identical in form.

17. The jack bracket as claimed in one of claims 1 to 16, characterized in that the bracket (12) is located outside the component separation between a sill panel (27) and an underbody panel (28) of the motor vehicle (30), the bracket (12) with the receiving element projecting through an opening (44) in the underbody panel (28).

18. A process for producing a jack bracket of a motor vehicle adapted to being fixed to a sill of the motor vehicle by flanges and having an opening for receiving a jack, characterized in that the bracket (12) is assembled from a hollow profiled section (6) and a cover (13) which covers the hollow profiled section (6) at one end.

19. A process as in claim 18, thereby characterized, that the hollow profiled section (6) is formed from a tubular blank (1) which is expanded by means of hydroforming.

20. A process as in claim 18, thereby characterized, that in the hollow profiled section (6) hydroforming pressure forms at least two expanded sections (2), which sections (2) are then divided into separate hollow profiled sections (6) by a dividing process.

21. The process as claimed in claim 20, characterized in that the blank (1), following the forming operation, is divided between the expanded sections (2), transversely with respect to the longitudinal axis (5) of the blank, to form individual blank sections, and in that then the individual blank sections are divided approximately in the middle, by a further dividing process taking place transversely with respect to the axial extent of the blank section, into in each case two hollow profiled sections (6).

22. The process as claimed in one of claims 19 to 21, characterized in that the unexpanded ends (4) of the blank (1) are cut off after the forming operation.

23. The process as claimed in one of claims 18 to 22, characterized in that wall sections are notched or cut out at that end (7) of the hollow profiled section (6) which is remote from the cover, and in that at least some (9a) of the wall parts (9), which are spaced apart from one another by the gap (8) that is formed and form residual flanges, is angled off.

24. The process as claimed in claim 23, characterized in that the

notching takes place during or following the hydroforming of the hollow profiled section (6), with the hydroforming pressure still present in the hydroforming tool.

25. The process as claimed in one of claims 18 to 24, characterized in that a sheet-metal section is deep-drawn to form a cap-like cover (13), and in that the cover (13) is preferably centrally perforated, in particular stamped.

26. The process as claimed in claim 25, characterized in that the cap-like cover (13) is fitted onto the hollow profiled section (6) and is then joined to the hollow profiled section (6), preferably by welding, in the region of the end face (14) of its cylindrical edge (15).